

WHAT IS CLAIMED IS:

1. A linear actuator, comprising:
  - two half-shells joined together to form a chamber;
  - a motor housing extending outwardly from one of the half-shells, the motor housing being in communication with the chamber;
  - a motor installed in the motor housing for driving a motor shaft extending towards into the chamber, the motor shaft including a worm;
  - a guiding screw having a threaded section and a fitting section connected as a line, wherein the threaded section includes a worm gear to be intermeshed with the motor shaft, the fitting section extends into the chamber to be mounted to a rear arm extending out of the half-shells from a rear end thereof, and the threaded section extends out of the half-shells from a front end thereof, the threaded section includes a screw nut;
  - an interior tube encircling the guiding screw and having a rear end connected to the screw nut, the interior tube including a connection member at a front end thereof;
  - an exterior tube telescopically receiving the interior tube therein, the exterior tube having a rear end extending into the chamber and a front end allowing the connection member to extend out of the chamber;
  - at least two ball bearings installed in the fitting section at two sides of the worm gear; and
  - a fitting seat installed in the chamber allowing the fitting section to extend through, the fitting seat including a worm gear seat and two bearing seats for receiving the worm gear and the ball bearings therein.
- 25 2. The actuator of Claim 1, wherein the ball bearings have different sizes.
3. The actuator of Claim 1, wherein the fitting seat has a front end connected to an exterior tube sleeve which receiving the rear end of the exterior tube therein.

4. The actuator of Claim 3, wherein the fitting seat has a rear end connected to the rear arm.

5. The actuator of Claim 3, wherein the front end of the exterior tube further comprises a fitting lid to cover the interior tube.

5 6. The actuator of Claim 1, wherein the fitting seat has a rear end connected to the rear arm.

7. The actuator of Claim 1, wherein the front end of the exterior tube further comprises a fitting lid to cover the interior tube.

8. The actuator of Claim 1, further comprising a control member, an  
10 interlock member connected to the control member and a clutch member to be engaged and disengaged with the worm gear, wherein the clutch member is installed at the fitting section and fitted at a proximal end of the worm gear, while a distal end of the worm gear includes a resilient member.

9. The actuator of Claim 8, wherein the clutch member is fitted at the  
15 fitting section by a fitting member.

10. The actuator of Claim 9, wherein the fitting member includes a bolt.

11. The actuator of Claim 8, wherein the resilient member includes spring.